

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An information recording method for recording information in an optical recording medium having at least first and second information recording layers, the method comprising:

projecting a pulse-like laser beam whose power is modulated between a plurality of levels, including at least a recording power, onto the optical recording medium via a light incidence plane;

forming thereon a plurality of recording marks selected from a group consisting of several types of recording marks with different lengths; ~~and~~

setting the recording powers of a top pulse and/or a last pulse of the laser beam used when at least one recording mark is to be formed in the first information recording layer to be lower than the recording power of a multi-pulse thereof, thereby recording information in the first information recording layer, wherein the first information recording layer is located on a side of the light incidence plane with respect to the second information recording layer and the second information recording layer is irradiated with the laser beam via the first information recording layer; and

recording information in the second information recording layer with the recording powers of the top pulse and/or the last pulse of the laser beam set to be substantially the same as the recording power of the multi-pulse thereof.

2-4. (Canceled)

5. (Previously Presented) An information recording method in accordance with Claim 1, wherein a wavelength (λ) of the laser beam and a numerical aperture (NA) of an

objective lens satisfy the condition that the wavelength divided by the numerical aperture (λ/NA) is equal to or less than 700 nm.

6. (Previously Presented) An information recording method in accordance with Claim 1, wherein the laser beam has a wavelength (λ) of between 200 to 450 nm.

7. (Currently Amended) An information recording apparatus for recording information in an optical recording medium, the information recording apparatus comprising:

at least first and second information recording layers where information is recorded by projecting a pulse-like laser beam having power modulated between a plurality of levels including at least a recording power onto the optical recording medium via a light incidence plane and forming thereon a plurality of recording marks selected from a group consisting of several types of recording marks having different lengths, the information recording apparatus being constituted so as to set the recording powers of a top pulse and/or a last pulse of the laser beam used when information is to be recorded in the first information recording layer to be lower than the recording power of a multi-pulse thereof, wherein the first information recording layer is located on a side of the light incidence plane with respect to the second information recording layer and the second information recording layer is irradiated with the laser beam via the first information recording layer wherein information is recorded in the second information recording layer with the recording powers of the top pulse and/or the last pulse of the laser beam set to be substantially the same as the recording power of the multi-pulse thereof.

8-9. (Canceled)

10. (Previously Presented) An information recording apparatus in accordance with Claim 7, wherein a wavelength (λ) of the laser beam and a numerical aperture (NA) of an objective lens satisfy the condition that the wavelength divided by the numerical aperture (λ/NA) is equal to or less than 700 nm.

11. (Previously Presented) An information recording apparatus in accordance with Claim 7, wherein the laser beam has a wavelength (λ) of between 200 to 450 nm.

12. (Currently Amended) An optical recording medium comprising:
at least first and second information recording layers in which information can be recorded by projecting a pulse-like laser beam whose power is modulated between a plurality of levels, including at least a recording power, onto the optical recording medium via a light incidence plane and forming thereon a plurality of recording marks selected from a group consisting of several types of recording marks having different lengths, wherein the recording powers are set with information required for setting the recording powers of a top pulse and/or a last pulse of the laser beam used when information is to be recorded in the first information recording layer to be lower than the recording power of a multi-pulse thereof, wherein the first information recording layer is located on a side of the light incidence plane with respect to the second information recording layer and the second information recording layer is irradiated with the laser beam via the first information recording layer wherein information is recorded in the second information recording layer with the recording powers of the top pulse and/or the last pulse of the laser beam set to be substantially the same as the recording power of the multi-pulse thereof.

13-14. (Canceled)

15. (Previously Presented) An optical recording medium in accordance with Claim 12, which further comprises a light transmission layer and the light transmission layer has a thickness of between 30 to 200 μm .

16. (Currently Amended) A method for recording information in an optical recording medium having at least a first recording layer ~~on~~ and at least a second ~~recording layer~~, the method comprising:

projecting a laser beam having pulses modulated in power between a plurality of levels onto the optical recording medium via light incidence plane, wherein at least a recording power is included in the plurality of levels;

forming a plurality of recording marks on the optical recording medium; ~~and~~

setting the recording power of a top pulse and a last pulse of the laser beam to a substantially equal level lower than the recording power of other pulses within the laser beam when at least one recording mark is to be formed in the first recording layer; and

setting the recording power of the top and/or last pulse to be substantially the same as the recording power of the other pulses within the laser beam when at least one mark is to be recorded in the second recording layer while the first recording layer is located on a side of the light incidence plane.

17. (Canceled)

18. (New) A device for recording information on an optical recording medium, the device comprising:

a means for rotating an optical recording medium having a first recording layer and a second recording layer, the second recording layer positioned on a side of the optical recording medium opposite the first recording layer; and

an optical head operable to transmit a laser beam having a plurality of pulses onto the first recording layer to record information thereon and to transmit the laser beam through the first recording layer onto the second recording layer to record information on the second recording layer.

19. (New) The device of claim 18 wherein the optical head is operable to record information on the first recording layer with one of a top pulse and a last pulse of the laser beam set with a lower recording power level than a recording power level of a multi-pulse of the laser beam.

20. (New) The device of claim 18 wherein the optical head is operable to record information on the second recording layer with one of a top pulse and a last pulse of the laser beam set with a recording power level substantially equivalent to a recording power level of a multi-pulse of the laser beam.